GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

STARRED QUESTION NO:358
ANSWERED ON:23.12.2008
WEATHER FORECAST
Sugavanam Shri E.G.;Vallabbhaneni Shri Balashowry

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the mechanism for weather forecasting is not realistic in the country;

(b) if so, the details thereof and the reaction of the Government thereto;

(c) whether the Indian Meteorological Department (IMD) lacks adequate equipment and trained manpower required for accurate weather forecasting;

(d) if so, the details thereof and the reasons therefor;

(e) whether the Government proposes to modernise/upgrade the IMD and all the Meteorological Centres in the country;

(f) if so, the details thereof; and

(g) the steps taken/being taken by the Government for accurate forecasting of weather conditions in the country?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES(SHRI KAPIL SIBAL)

(a) to (g) : A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (g) OF THE LOK SABHA STARRED QUESTION NO 358 FOR ANSWER ON 23RD DECEMBER,2008

(a) No Sir. The weather forecasts given by India Meteorological Department (IMD) can not be termed as unrealistic. 10 year average skill of 3-day in advance location specific weather forecast in the country is about 67% during monsoon period and about 88% during winter season.The accuracy of forecast for broader region like a Meteorological sub-division or a state is much higher (more than 90%). Weather forecast is an application science which is highly probabilistic in nature. Every forecast has a margin of error which can be reduced through experience of forecasters and use of advanced technology. Weather forecasts are made on the basis of meteorological observations which are used in computer based simulation models to predict the future state of atmosphere. The accuracy of the forecast depends on several factors such as density and quality of observations, simulation of present state of atmosphere, complexity of particular weather situations, etc. The weather forecasting in tropical countries like India is scientifically much more difficult and complex as compared to that in countries of higher latitudes. In India, weather forecasting is particularly very difficult as country is surrounded by data sparse hilly areas and sea from all sides, complexity arising out of two monsoon seasons viz. Southwest (June-September) and North-east (Oct-Dec); two tropical cyclone seasons viz., pre-monsoon (March-May) and Post-monsoon (October-December); presence of various scales of high impact weather events, etc.

(b) Does not arise.

(c) Yes Sir.

(d) Until recently IMD had been receiving inadequate funding to be able to upgrade and augment the observational infrastructure and increase the density of network. IMD was also lacking in sufficient number of trained manpower capable of handling advanced technology for weather prediction.

(e) Yes Sir.

(f) An amount of Rs. 920.00 Crore has been allocated by the Government for the modernisation of IMD forecasting infrastructure during next 2 years.

(g) To bring weather and climate services to the central stage of national consciousness, the Government established a new Ministry of Earth Sciences (MoES) in 2006 with the aim of expanding, upgrading, maximizing, collating and integrating ocean and atmospheric observations for generating skillful weather forecasts so as to provide the best meteorological services to the country in the time to come.

Some of the major components of modernizations programme of IMD are:

i) Enhancing significantly the density of observational network, upgrading and commissioning of state-of-art equipments such as Doppler Weather Radars, Automatic Rain Gauges, Automatic Weather Stations, Wind Profilers etc at various locations in the country.

ii) Collaboration with M/s Meteo-France International, France to build appropriate hardware and software interfaces for integration of real time observational data, analysis, interpretation and dissemination system through strengthening of the IT infrastructure for exchanging the observation and forecast products across the IMD forecast offices seamlessly.

iii) Commissioning of High power computing systems for implementation of advanced global, regional and local scale weather forecasting systems in IMD.